

2 August 1956

MEMORANDUM FOR: THE RECORD

SUBJECT: Visit to [REDACTED]

1. Time and Place of Meeting: The meeting was held on 27 July 1956, at [REDACTED]

2. Attendance: [REDACTED]

3. Discussion:

a. P-109B Contact Microphone

Four unloaded Rochelle crystals, obtained from [REDACTED] were delivered to [REDACTED] wants to load these crystals in a different manner and to a lesser degree than [REDACTED] has done. [REDACTED] has checked the [REDACTED] reports and, in general, found them accurate and reliable. However, [REDACTED] does not agree with [REDACTED] on the point of having a highly sensitive, narrow range crystal microphone. [REDACTED] believes that the frequency range should be broader, even if sensitivity has to be reduced. [REDACTED] prefers a frequency range from 500-2000 cps and is not primarily concerned with filtering out any of the higher frequencies at this time.

[REDACTED] stated that the crystals must be shielded and are now in the process of shielding all the microphones being used on this project. [REDACTED] has come to the same conclusion and have now shielded their microphones. [REDACTED] states that this reduces the ambient noise picked up.

[REDACTED] is continuing with wall and intelligibility tests.

b. Ultra-Sonic Measurement

[REDACTED] brought up the subject of wall measurement by ultra-sonics. He became aware of our interest in this matter through contact with the work [REDACTED] is doing on measurement by neutron back-scattering. [REDACTED] stated that he considered it feasible, to use a reflector ultra-sonic measurement instrument, instead of one based

on the resonance principle.

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on the resonance principle. [] stated that the reflective signal should be at least 50% accurate. For example, if the distance indicated by the measurement is 6 inches, it would be safe to drill 3 inches. Repeat measurements could be taken, down to the final measurement, which should be accurate within 5%. Also, accuracy should improve with declining wall measurement.

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[] would like to submit a proposal for a quick feasibility study. A reflector ultra-sonic measurement instrument can be rented on a monthly basis. [] stated that the study could be completed within two months and would cost approximately \$2000.

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This study would be similar to the one conducted by NBS under Ad Hoc #25. However, the Bureau had only considered resonant ultra-sonic devices and so far has not come to any definite conclusions. The possibility of using microwaves, as proposed by NBS, still has not proven feasible and the Bureau, due to personnel shortages, has been able to devote very little time to it. Therefore, the [] proposal, in the opinion of the undersigned, looks good and should be accepted.

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[]
TSS/APD

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Distribution:

P-109B - Orig.
Ad Hoc #25 - 1
AWS - 1
Chrono - 1

TSS/APD/AWS/bf (2 Aug 56)

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